UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,348	06/14/2006	Alexandre Benoit	032326-312	2095

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BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER
FIELDS, COURTNEY D

ART UNIT	PAPER NUMBER
2437	

NOTIFICATION DATE	DELIVERY MODE
04/29/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 December 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-6</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1 and 3 has been amended.

2.   Claims 1-6 are pending.

Response to Arguments

1.   Applicant's arguments filed 22 December 2008 have been fully considered but they are not persuasive.

2.   Referring to the rejection of claim 1, the Applicant contends that the prior art, Vetillard does not disclose at least downloading the signed original code and the signed software component into the card, and on card, verifying the signature respectively of the original code and of the software component, and applying the software component to the original code so as to reconstruct the modified code for its execution by the microprocessor. The Examiner respectfully disagrees and asserts that Vetillard discloses on page 2, Section 0057, the invention address the situation wherein the client is a processing microsystem such as a smart card or some other onboard system with limited security capabilities. The software programs must be downloaded via a secure channel between the server and the client, which guarantees the integrity and/or confidentiality of information transmitted over the channel. The downloaded executable code is verified wherein the coded must conform to a set of properties that must be verified by a verification authority before downloading is authorized onto the smartcard. (See page 2, Sections 0055-0056) After downloading the data, the electronic signatures are verified using pubic key algorithms. (See page 3, Section 0073) Vetillard further discloses the advantages of verifying electronic signatures enables implementation in a

smartcard for guaranteeing the source of the executable downloaded code as shown on

page 3, Section 0070.

3.   Therefore, the rejection of claims 1-6 are maintained in view of the reasons

above and in view of the reasons below.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Vetillard

(Pub No. 2005/0107069).

        Referring to the rejection of claim 1, Vetillard discloses a method of managing an

original executable code forming a program to be downloaded into a reprogrammable

on-board computer system in a microprocessor card said code possessing a

cryptographic signature and being executable by the microprocessor of the on-board

system after verification by the latter of the validity of the said signature, the said

method comprising the following steps:

        off card: - identifying a modified executable code corresponding to the original

code, adapted to a predefined specific use and from variations between the data of the

original code and the corresponding modified code, calculating a software component

which, when it is applied to the original code, makes it possible to reconstruct the

modified code; (See page 3, Sections 0058-0059)

signing said software component; (See page 3, Sections 0060-0061)

downloading the signed original code and the signed software component into

the card; (See page 3, Sections 0062-0064)

and on card: - verifying the signatures respectively of the original code and of the

software component, and applying the software component to the original code so as to

reconstruct the modified code for its execution by the microprocessor. (See page 3,

Sections 0073-0074)

Referring to the rejection of claim 2, Vetillard discloses the claimed limitation

wherein the original executable code consists of an intermediate code, executable by

the on-board system microprocessor by means of a virtual machine for interpreting this

intermediate code. (See page 3, Sections 0065-0067)

Referring to the rejection of claim 3, Vetillard discloses the claimed limitation

wherein the virtual machine is provided with an execution stack and in-that the

downloaded software component, which is applied on card to the original intermediate

code, makes it possible to reconstruct a modified intermediate code a priori satisfying

the verification criteria for the said intermediate code according to which the operands of

each instruction of said code belong to the data types manipulated by this instruction

and, on each target switching instruction, the execution stack of the virtual machine is empty. (See page 2, Section 0056 and page 3, Section 0073)

Referring to the rejection of claim 4, Vetillard discloses the claimed limitation wherein the modified intermediate code obtained by the application of the software component is verified, before its execution by the microprocessor by means of the virtual machine, according to a process verifying that the modified intermediate code satisfies the verification criteria. (See page 2, Section 0056)

Referring to the rejection of claim 5, Vetillard discloses the claimed limitation wherein the downloaded software component, applied on card to the original code makes it possible to reconstruct a modified code so that its execution is more rapid compared with that of the original code. (See page 3, Section 0073)

Referring to the rejection of claim 6, Vetillard discloses the claimed limitation wherein the downloaded software component, applied on card to the original code, makes it possible to reconstruct a modified code so that it procures an optimization in terms of size compared with the original code. (See page 2, Section 0056)

Conclusion

3.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to COURTNEY D. FIELDS whose telephone number is

(571)272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00

pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Courtney D. Fields/
Examiner, Art Unit 2437
April 23, 2009

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2437